

## **DETAILED ACTION**

### ***Response to Amendment***

1. Receipt of Applicant's Amendment filed 09/30/09 is acknowledged.

### ***EXAMINER'S AMENDMENT***

2. Authorization for this examiner's amendment was given in a telephone interview with Mr. Brian M. Hoffman (RN 39,713) on October 5, 2009.

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

The application has been amended as follows:

1. (Currently Amended) A method of ranking article identifiers of a result set from an implicit query implied from a user's current context, the method comprising:

receiving an event concerning the user's current context, wherein the event comprises a user interaction with an article having content stored on a local client device, wherein the article is associated with at least one of a plurality of client applications;

analyzing the content of the article associated with the event concerning the user's current context to extract at least one keyword and to identify one or more

characteristics of the content of the article, a characteristic comprising highlighting of the content of the article;

generating ~~an~~ the implicit query based at least in part on the at least one keyword;

performing a search based at least in part on the implicit query to determine ~~a~~ the result set, wherein the result set comprises one or more article identifiers associated with articles relevant to the implicit query; and

ranking the article identifiers based at least in part on the one or more characteristics of the content of the article associated with the event concerning the user's current context, wherein the one or more characteristics comprise the identified highlighting of the content of the article associated with the event.

2. (Previously Presented) The method of claim 1, wherein ranking the article identifiers is based at least in part on a preference of a current user.

3. (Previously Presented) The method of claim 2, wherein the preference of the current user is based at least in part on click-through data associated with the article identifiers.

4. (Previously Presented) The method of claim 2, wherein the preference of the current user is based at least in part on file type associated with the article identifiers.

5. (Cancelled)
6. (Previously Presented) The method of claim 1, wherein the one or more characteristics comprise bolding of content within the article.
7. (Previously Presented) The method of claim 1, wherein ranking the article identifiers is based at least in part on a term frequency and a document frequency.
8. (Previously Presented) The method of claim 7, wherein ranking the article identifiers comprises determining a rank that is proportional to the log of a sum of a first constant plus the term frequency and inversely proportional to the log of a sum of a second constant plus the document frequency.
9. (Previously Presented) The method of claim 1, wherein ranking the article identifiers comprises determining a rank that is proportional to the log of a sum of a constant plus a term frequency and inversely proportional to an output of a mapping function that maps ranges of document frequency into constants.
10. (Previously Presented) The method of claim 1, wherein the one or more characteristics comprise number data associated with the keyword within the article.
11. (Original) The method of claim 10, wherein the number data comprises a number of letters in the keyword.

12. (Previously Presented) The method of claim 10, wherein the number data comprises whether the keyword comprises numbers.

13. (Previously Presented) The method of claim 1, wherein the one or more characteristics comprise capitalization data associated with content within the article.

14. (Previously Presented) The method of claim 1, wherein ranking the article identifiers is based at least in part on a number of sources from which the keyword was located.

15. (Currently Amended) The method of claim 1, wherein ranking the article identifiers is based at least in part on a number of result sets in which the result set appears.

16. (Previously Presented) The method of claim 1, further comprising:  
analyzing the content of the article associated with the event concerning the user's current context to extract a plurality of keywords; and  
determining keyword ranking scores for the plurality of keywords.

17. (Previously Presented) The method of claim 16, wherein ranking the article identifiers is based at least in part on the keyword ranking scores.

18. (Original) The method of claim 17, wherein ranking the article identifiers comprises assigning a higher ranking to article identifiers associated with articles containing higher ranked keywords.

19. (Previously Presented) The method of claim 1, wherein analyzing the content of the article associated with the event concerning the user's current context to extract at least one keyword comprises extracting a keyword from at least one of recently typed words, an entire document, a selected portion of a document, or words surrounding a cursor.

20. (Previously Presented) The method of claim 1, wherein analyzing the content of the article associated with the event concerning the user's current context to extract at least one keyword from an event comprises determining proper names.

21. (Original) The method of claim 20, wherein determining proper names comprises crawling at least one article.

22. (Previously Presented) The method of claim 1, further comprising:  
filtering the result set based on a threshold; and  
outputting the article identifiers associated with the filtered result set.

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23. (Original) The method of claim 22, wherein the threshold comprises a number of keywords.

24. (Original) The method of claim 22, wherein the threshold comprises a minimum weighting score based at least in part on one or more of a number of keywords multiplier, a source multiplier, and a time multiplier.

25. (Cancelled)

26. (Cancelled)

27. (Currently Amended) A computer-readable storage medium containing program code for ranking article identifiers of a result set from an implicit query implied from a user's current context, the program code comprising:

program code for receiving an event concerning the user's current context, wherein the event comprises a user interaction with an article having content stored on a local client device, wherein the article is associated with at least one of a plurality of client applications;

program code for analyzing the content of the article associated with the event concerning the user's current context to extract at least one keyword and to identify one or more characteristics of the content of the article, a characteristic comprising highlighting of the content of the article;

program code for generating an the implicit query based at least in part on the at least one keyword;

program code for performing a search based at least in part on the implicit query to determine a the result set, wherein the result set comprises one or more article identifiers associated with articles relevant to the implicit query; and

program code for ranking the article identifiers based at least in part on the one or more characteristics of the content of the article associated with the event concerning the user's current context, wherein the one or more characteristics comprise the identified highlighting of the content of the article associated with the event.

28. (Previously Presented) The computer-readable storage medium of claim 27, wherein ranking the article identifiers is based at least in part on a preference of a current user.

29. (Previously Presented) The computer-readable storage medium of claim 28, wherein the preference of the current user is based at least in part on click-through data associated with the article identifiers.

30. (Previously Presented) The computer-readable storage medium of claim 28, wherein the preference of the current user is based at least in part on file type associated with the article identifiers.

31. (Cancelled)

32. (Previously Presented) The computer-readable storage medium of claim 27, wherein the one or more characteristics comprise bolding of content of the article.

33. (Previously Presented) The computer-readable storage medium of claim 27, wherein ranking the article identifiers is based at least in part on a term frequency and a document frequency.

34. (Previously Presented) The computer-readable storage medium of claim 33, wherein ranking the article identifiers comprises determining a rank that is proportional to the log of the sum of a first constant plus the term frequency and inversely proportional to the log of the sum of a second constant plus the document frequency.

35. (Previously Presented) The computer-readable storage medium of claim 27, wherein ranking the article identifiers comprises determining a rank that is proportional to the log of the sum of a constant plus a term frequency and inversely proportional to the output of a mapping function that maps ranges of document frequency into constants.

36. (Previously Presented) The computer-readable storage medium of claim 27, wherein the one or more characteristics comprise number data associated with the keyword within the article.



37. (Previously Presented) The computer-readable storage medium of claim 36, wherein the number data comprises a number of letters in the keyword.

38. (Previously Presented) The computer-readable storage medium of claim 36, wherein the number data comprises whether the keyword comprises numbers.

39. (Previously Presented) The computer-readable storage medium of claim 27, wherein the one or more characteristics comprise capitalization data associated with content within the article.

40. (Previously Presented) The computer-readable storage medium of claim 27, wherein ranking the article identifiers is based at least in part on a number of sources from which the keyword was located.

41. (Currently Amended) The computer-readable storage medium of claim 27, wherein ranking the article identifiers is based at least in part on a number of result sets in which the result set appears.

42. (Previously Presented) The computer-readable storage medium of claim 27, further comprising program code for:

analyzing the content of the article associated with the event concerning the user's current context to extract a plurality of keywords; and

determining keyword ranking scores for the plurality of keywords.

43. (Previously Presented) The computer-readable storage medium of claim 42, wherein ranking the article identifiers is based at least in part on the keyword ranking scores.

44. (Previously Presented) The computer-readable storage medium of claim 43, wherein ranking the article identifiers comprises assigning a higher ranking to article identifiers associated with articles containing higher ranked keywords.

45. (Previously Presented) The computer-readable storage medium of claim 27, wherein analyzing the content of the article associated with the event concerning the user's current context to extract at least one keyword comprises extracting a keyword from at least one of recently typed words, an entire document, a selected portion of a document, or words surrounding a cursor.

46. (Previously Presented) The computer-readable storage medium of claim 27, wherein analyzing the content of the article associated with the event concerning the user's current context to extract at least one keyword comprises determining proper names.

47. (Previously Presented) The computer-readable storage medium of claim 46, wherein determining proper names comprises crawling at least one article.

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48. (Previously Presented) The computer-readable storage medium of claim 27, the program code further comprising:

program code for filtering the result set based on a threshold; and

program code for outputting the article identifiers associated with the filtered result set.

49. (Previously Presented) The computer-readable storage medium of claim 48, wherein the threshold comprises a number of keywords.

50. (Previously Presented) The computer-readable storage medium of claim 48, wherein the threshold comprises a minimum weighting score based at least in part on one or more of a number of keywords multiplier, a source multiplier, and a time multiplier.

51. (Cancelled)

52. (Cancelled)

53. (Currently Amended) A method of ranking article identifiers of a result set from an implicit query implied from a user's current context, the method comprising:

receiving a contextual event concerning the user's current context, the contextual event comprising a user's modification of a file having content stored on a local client device;

analyzing the content of the file stored on the local client device to extract at least one keyword and to identify one or more characteristics of the content of the file, a characteristic comprising highlighting of the content of the file;

generating ~~an~~ the implicit query based at least in part on the at least one keyword extracted from the file;

performing a search based at least in part on the implicit query to determine ~~a~~ the result set, wherein the result set comprises one or more article identifiers associated with articles comprising the at least one keyword;

determining a ranking score for the one or more article identifiers based at least in part on the one or more characteristics of the content of the ~~article~~ file associated with the contextual event concerning the user's current context, wherein the one or more characteristics comprise the identified highlighting of the content of the ~~article~~ file associated with the contextual event; and

ranking the one or more article identifiers in the result set based on the ranking score.

54. (Previously Presented) The method of claim 1, wherein the article is a document on the client device, and wherein the event comprises an addition of words to the document.

55. (Previously Presented) The method of claim 1, wherein the article is a document on the client device, and wherein the event comprises a placement of a cursor near words in the document.

56. (Previously Presented) The method of claim 1, wherein the article is associated with one client application selected from a group consisting of a word processing program, a spreadsheet program, a presentation program, an e-mail program, an instant messenger program, and a database program.

57. (Previously Presented) The method of claim 1, wherein the one or more characteristics comprise italicizing of content within the article associated with the event.

58. (Previously Presented) The method of claim 1, wherein the one or more characteristics comprise font color of content within the article associated with the event.

59. (Previously Presented) The method of claim 1, wherein the one or more characteristics comprise heading data of content within the article associated with the event.

60. (Previously Presented) The method of claim 1, wherein the at least one keyword is extracted from recently typed words within the article associated with the event.

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61. (Previously Presented) The method of claim 1, wherein the at least one keyword is extracted from a user selected portion within the article associated with the event.

62. (Previously Presented) The method of claim 1, wherein the at least one keyword is extracted from words surrounding a cursor within the article associated with the event.

### ***Remarks***

3. Claim 27 recites "a computer readable storage medium", wherein the Office considers the term "medium" as excluding carrier wave, signal, transmission media, or any form of energy, such that the claim clearly falls within a statutory class of invention as required under the terms of 35 U.S.C. 101.

### ***Allowable Subject Matter***

4. Claims 1-4, 6-24, 27-30, 32-50 and 53-62 are allowed and are renumbered as 1-56.

The following is an examiner's statement of reasons for allowance: Claims 1-4, 6-24, 27-30, 32-50 and 53-62 are allowable because the prior art made of record does not teach or fairly suggest the combination of elements as recited in independent Claims 1, 27 and 53.

Specifically, the prior art of record does not teach:

- ranking the article identifiers based at least in part on the one or more characteristics of the content of the article associated with the event concerning

- the user's current context, wherein the one or more characteristics comprise the identified highlighting of the content of the article associated with the event taken with all other limitations as recited in Claim 1.
- program code for ranking the article identifiers based at least in part on the one or more characteristics of the content of the article associated with the event concerning the user's current context, wherein the one or more characteristics comprise the identified highlighting of the content of the article associated with the event taken with all other limitations as recited in Claim 27.
  - determining a ranking score for the one or more article identifiers based at least in part on the one or more characteristics of the content of the file associated with the contextual event concerning the user's current context, wherein the one or more characteristics comprise the identified highlighting of the content of the file associated with the contextual event taken with all other limitations as recited in Claim 53.

The dependent claims being definite, further limiting and fully enabled by the Specification are also allowed.

These features, together with the other limitations of the independent claim are novel and non-obvious over the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh-Ha Dang whose telephone number is 571-272-4033. The examiner can normally be reached on Monday-Friday from 9:00 AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on 571-272-1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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